

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)
2. (Currently amended) The method of claim 21-~~or 22~~ wherein said phosphatase-targeting toxin is produced by algae or by cyanobacteria.
3. (Currently amended) The method of claim 21-~~or 22~~, wherein the phosphatase-targeting toxin to be determined is a hepatoxin-hepatotoxin or okadaic acid.
4. (Previously presented) The method of claim 21, wherein said phosphatase targeting toxin competes with said second ligand for a limited number of binding sites on said first ligand.
5. (Currently amended) The method of claim 21-~~or 22~~, wherein the proportion of said second ligand present in the bound fraction ~~or in the unbound fraction is determined and is~~ indicative of the amount of the phosphatase-targeting toxin in said sample.

6. (Currently amended) The ~~assay~~ method of claim 21-~~or~~22, wherein the sample is surface water, water taken from shellfish, water taken from a habitat in which shellfish live, or water taken from domestic water supplies.

7. (Currently amended) The method of claim 21-~~or~~22, wherein ~~when the first ligand is a protein phosphatase, the second ligand is an antibody or antibody fragment, and when the second ligand is a protein phosphatase, the first ligand is an antibody or antibody fragment.~~

8. (Currently amended) The method of claim 21-~~or~~22, wherein the protein phosphatase is protein phosphatase 2A.

9. (Canceled)

10. (Currently amended) The method of claim 219 wherein the second ligand carries a reporter moiety.

11. (Currently amended) The method of claim 10 wherein ~~when the first ligand is a protein phosphatase enzyme, the second ligand is a labeled peptide hepatotoxin or labeled okadaic acid.~~

12. (Currently amended) The method of claim 11 wherein the hepatotoxin is selected from nodularin, microcystin LC-LR or microcystin YR.

13. (Currently amended) The method of claim 21-~~or~~22, wherein the solid support is a dipstick or solid matrix.

14. (Previously presented) The method of claim 13 wherein the solid matrix is polymeric or magnetic beads.

15.-20. (Canceled)

21. (Currently amended) A method for determining the presence of a phosphatase targeting toxin in a sample comprising:

(A) contacting a first ligand, wherein said first ligand is immobilized on a solid support, with:

- (i) a sample suspected to contain a phosphatase-targeting toxin, and
- (ii) a second ligand,

wherein said first ligand is a protein phosphatase enzyme and is capable of binding, in a competitive manner, said phosphatase-targeting toxin and said second ligand; ~~or~~

~~said second ligand is a protein phosphatase enzyme and is capable of binding, in a competitive manner, said phosphatase targeting toxin and said first ligand;~~

(B) separating a bound fraction from a non-bound fraction, and
(C) determining the presence of said second ligand in the bound fraction ~~or in the non-bound fraction~~, wherein the amountpresence of said second ligand in ~~either~~ the bound fraction ~~or the non-bound fraction~~ is indicative of the amountpresence of said phosphatase targeting toxin in said sample.

22. (Canceled)

23. (Currently amended) The method of claim 21~~or 22~~, wherein said first ligand is indirectly immobilized on the solid support.

24. (Currently amended) The method of claim 21~~or 22~~, wherein said first ligand is directly immobilized on the solid support.

25. (Currently amended) The method of claim 21~~or 22~~, wherein the presence of said second ligand in the bound fraction ~~or the presence of said second ligand in the unbound fraction~~ is determined directly.

26. (Currently amended) The method of claim 21-~~or 22~~, wherein the presence of said second ligand in the bound fraction-~~or the presence of said second ligand in the unbound fraction~~ is determined indirectly.

27. (Currently amended) The method of claim 21-~~or 22~~, wherein the amount~~presence~~ of said second ligand in the bound fraction-~~or the presence of said second ligand in the unbound fraction~~ is inversely related to the amount~~presence~~ of the phosphatase-targeting toxin in said sample.

28. (Canceled)

29. (Canceled)